

protein homologue and lacks any microbial T cell epitope which
10 does not have sufficient identity with corresponding amino acids
of said mammalian stress protein homologue.--

REMARKS

The Examiner has rejected claims 1-8, 17 and 18 under 35 U.S.C. §112, second paragraph, for purported indefiniteness. Specifically, the Examiner alleges that the term "sequence identity" is indefinite because the algorithm used to generate the percentage sequence identity is not explicitly stated. In response, the following method (algorithm) was used in generation of the "sequence identities" in the specification of the present application:

1. Define the stretches of amino acid sequences to be compared;

2. place the maximum number of amino acids below each other, which may or may not create gaps in either sequence;

3. determine the total number of amino acids, including gaps, in any one of the sequences under consideration;

4. determine the number of identical amino acids placed below each other; and

5. divide the latter number (identical amino acids) by the former (total amino acids) and multiply by 100%.

Use of this algorithm is evidenced by the calculated percentages set forth in the specification and drawings of this application. Specifically, Figs. 13 and 14 show the sequence alignments and relative "sequence identity" percentages with no discussion of weighting of gaps, mismatches or the like, for any purpose (for instance, as is found in the FastDB algorithm). The alignment shown in Fig. 13 depicts the method described above and is in agreement with the calculated percentages set forth therein. In view of the above, Applicants respectfully request reconsideration of this rejection under 35 U.S.C. §112, second paragraph.

The Examiner has rejected claims 1-6 and 17-18 under 35 U.S.C. §102(b) for purported anticipation by the Oftung article. The Examiner alleges that the present claims cannot distinguish over Oftung because the claims, as they are now pending, do not require a T cell response. In response, Applicants hereby amend claim 1 to recite the functional limitation that the "...part comprising a T cell epitope corresponding to a T cell epitope of the mammalian homologue...." The Oftung article discloses a microbial peptide, peptide 91-105 of *M. tuberculosis*. The peptide 91-105 does not contain a T cell epitope corresponding to a T cell epitope of a mammalian stress protein. The Oftung article, in Table 1, on p. 2750, disclosed practically zero T cell response for residues 91-105. This is confirmed by Figs. 3 and 4 in the present application, showing that the response to peptide 91-105 does not significantly differ from native controls. For this reason, Applicants respectfully request reconsideration of the rejection of claims 1-6 and 17-18

under 35 U.S.C. §102(b) for purported anticipation by the Oftung article.

The Examiner has rejected claims 1-4, 17 and 18 under 35 U.S.C. §102(b) for purported anticipation by EP 262,710. The Examiner alleges that claiming a peptide corresponding to a part of the amino acid sequence of a microbial protein which comprises 5-30 amino acids, does not exclude the 70mer sequence of the '710 patent. In response, Applicants amend claim 1, removing the comprising language to read "...said part consisting of 5-30 amino acids, at least 5 of which...." The "consisting of" language allows correspondence to no other sequences of the microbial protein. Thus, the 70mer of the '710 patent is excluded.

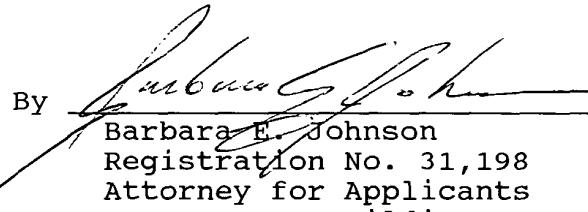
The Examiner has rejected claim 8 under 35 U.S.C. §103(a) for purported obviousness over one of the Oftung article or the '710 patent in view of United States Patent No. 5,643,873. Applicants believe that due to the above-referenced amendments to claim 1, the Oftung article and the '710 patent are no longer available to formulate his rejection, alone or in combination with the '873 patent. Applicants, therefore, respectfully request reconsideration of this rejection.

Applicants believe that claims 1-8, 17, 18 and new claim 21 define over the prior art of record and are in proper form or allowance. For this reason, Applicants respectfully request entry of the Amendments and allowance of claims 1-8, 17, 18 and 21.

Respectfully submitted,

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